

HOMA index

General:

The polycystic ovary syndrome (PCO) is a frequent cause of cycle disturbances and can lead to a substantial impairment of fertility. In many PCO patients, a (genetically determined) insulin resistance is found which is considered as important access and amplification factor for PCO. In addition, insulin resistance is a risk factor for the development of diabetes mellitus type II with subsequent cardiovascular complications (cardiac infarct, stroke). In this context, studies have shown that PCO patients, treated with the antidiabetic drug metformin, had spontaneous conception rates. In addition a primary prevention of diabetes type 2 (e.g. by lifestyle consultation) is possible with metformin.

Latest clinical studies have identified the intact proinsulin as a highly specific marker (almost 100 %) for the diagnostics of insulin resistance. However, the sensitivity (early recognition of insulin resistance) is relatively low (50%).

Calculation: $\text{Homa-index} = \text{fasting insulin} \times \text{fasting glucose (mmol/l)} / 22.5$

Indication: Clarification of insulin resistance, e.g. in context of PCO syndrome or in early stages of diabetes type II.

Material: NaF + Serum

Stability: 3 days at 2 to 8°C

TAT: same day, FML

Unit: see result

For complete list of laboratory test offered at Freiburg Medical Laboratory, please visit <http://www.fml-dubai.com/parameter-listings/>